

## ABSTRACT OF THE DISCLOSURE

A controller monitoring an operating state and performing a suitable process when detecting a magnetic pole position by means of a sensor for detecting a position and velocity of a movable part (rotor or movable member) of a synchronous motor. If tandem control is not employed, PWM of the motor is made enable to commence the operation of detecting the magnetic pole position, thus detecting an operation abnormality based on feedback of the position. In the case of tandem control including two position detectors, either a master or slave motor is brought into a free state, and the other is caused to perform the operation of detecting the magnetic pole position, thus detecting an operation abnormality based on the feedback of the position. In the case of the tandem control including one position detector, an adjustment is made to a relative disparity between magnetic pole positions of the motors of master and slave axes, and the operation of detecting the magnetic pole position is simultaneously implemented, thus detecting an operation abnormality based on the position feedback. An abnormality in operation of detecting the magnetic pole position can be detected. Also in the tandem control, it is possible to normally detect the magnetic pole position while preventing flexure and torsion of a machine during the operation of detecting the magnetic pole position.